

## Abstract

The present invention aims to control elements to improve operation efficiency of a plant based on a correlation value of the past accumulated data. An optimal operation controller of a plant includes:

5           a correlation analyzing unit for obtaining correlation between a state of a predetermined process and each element based on an operation status of the plant to be controlled, storing the correlation in a correlation table, and computing operation efficiency for the each element based on the operation status of the plant;

10           a categorization efficiency table for storing the operation efficiency of the predetermined process computed by the correlation analyzing unit for the operation status of the plant; and

            an optimal pattern searching unit for referring to the categorization efficiency table based on a data input from the plant and controlling and  
15   outputting an instruction to control the each element.